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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/770,880	02/03/2004	Srinivas Sreemanthula	863.0007.U1(US)	1057

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EXAMINER	
SAMUEL, DEWANDA A	
ART UNIT	PAPER NUMBER
2416	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/770,880	SREEMANTHULA ET AL.	
	Examiner	Art Unit	
	DEWANDA SAMUEL	2416	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 March 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16 and 31-59* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *31-42* is/are rejected.

7)☒ Claim(s) *1-16 and 43-59* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 June 2007* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *3/13/09*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This communication is responsive to the communication filed 03/13/2009.

Claims 1-16 and 31-59 are pending claims 17-30 were cancelled .

Response to Arguments

2. Applicant's arguments with respect to claim1-16 and 31-59 have been considered but are moot in view of the new ground(s) of rejection.

Information Disclosure Statement

3. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 31 and 32, are rejected under 35 U.S.C. 102(e) as being anticipated by Yegin (US Patent 7,376,097) in view of Warrier et al. (US Patent 6,684,256).

With regard to claim 31, a mobile station comprising: a transceiver configured to enable communication such that the mobile station functions as a gateway mobile terminal for being coupled between at least one Mobile Network Node (MNN) and an access point (AP) of an access network (AN), **(Yegin discloses having a client device 202 device interpreted as a "mobile station" can have two transceivers communicating with a access point 104 within an access network and communicate with a access router interpreted as "mobile network node", see col. 3 lines 12-67);** and a data processor configured, **(a microprocessor interpreted as a "data processor" see col. 3 lines 57-67),** in response to the mobile station connecting to the AP, to request information from a link layer address (LLA) manager of the AN, wherein the information relates to a plurality of LLAs, **(Yegin discloses having a method of associating an IP address with a plurality of link layer addresses in a wireless communication network , see title. Yegin further discloses having a client device interpreted as a " gateway mobile terminal " send a extended neighbor advertisement interpreted as a "neighbor advertisement" with multiple**

link-layer addresses interpreted as "link addresses" to a router , see col. 4 lines 36-37).

However, Yegin does not explicitly disclose wherein the data processor is further configured, in response to receiving a response to the request, to allocate individual ones of the plurality of LLAs to individual ones of the MNNs, **(Warrier et al. discloses having wireless network comprised of mobile nodes , see fig. 1 and disclosing if a registration request message is received the foreign agent proceeds with registering with mobile node, indicated in step 72. Once registration of the mobile node is completed, the home network IP address, home agent IP address and PPP link addresses are saved in a tunneling table, see col. 4 lines 45-67).**

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to implement registration request scheme which is taught by Warrier et al. into Yegin network providing an efficient registration scheme whereby increasing the network reliability.

With regard to claim 32, in combination Yegin and Warrier et al. teaches the mobile station recited in claim 31. where said data processor is operable to perform a neighbor discovery procedure with an access router (AR) of the AN to send at least one neighbor advertisement to declare an LLA allocated to the at least one MNN, **Yegin discloses having a method of associating an IP address with a plurality of link layer addresses in a wireless communication network , see title. Yegin further**

discloses having a client device interpreted as a " gateway mobile terminal " send a extended neighbor advertisement interpreted as a "neighbor advertisement" with multiple link-layer.

6. **Claim 33** is rejected under 35 U.S.C. 103(a) as being unpatentable over Yegin (US Patent 7,376,097) and Warrier et al. (US Patent 6,684,256) in further view of Chiou (US Patent 6,473,413).

With regard to claim 33, , in combination Yegin and Warrier et al. teaches the mobile station recited in claim 31. where the information relating to a plurality of LLAs comprises a group identification
(Group_ID), and where said data processor is operable to use the Group_ID to formulate a set of LLAs, individual ones of which are allocated to individual ones of the MNNs. **Chiou et al. discloses having a method for inter-IP- domain roaming across wireless networks (title). Chiou et al. further discloses having a MAC address (LLA) associated with an AP (access point). Chiou et al. discloses that a mobile station 19 moves from first access point A 13 to the new access point B 17 (column 3 line 59-67 and column 4 line 1-21) with a reassociation procedure between the AP 17 and mobile station 19).**

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to implement a mobile station 19 reassociating APs (access point) as taught by Chiou et al. into a Shitama's communication network to providing a mechanism to allow to roam among various access points in different IP subnets.

7. Claims 34-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yegin (US Patent 7,376,097) in view of Kato (US Patent 6,646,999).

With regard to claim 34, , in combination Yegin and Warrier et al. teaches the mobile station recited in claim 31. where the information relating to a plurality of LLAs comprises a set of LLAs individual ones of which are mapped to a hardwired address of individual ones of the MNNs, **,(Kato discloses having a mobile communication system, see title. Kato et al. further discloses packets are delivered to the end terminal interpreted as " network nodes" on a link layer address such as a MAC address interpreted as a " hardwired address", see col. 4 lines 52-59).**

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to incorporate a corresponding MAC address to a link layer

address as taught by Kato into Yegin communication system efficiently routing data within the network whereby increasing the reliability and accessibility.

With regard to claim 35, , in combination Yegin and Warrier et al. teaches the mobile station recited in claim 31. where the information relating to a plurality of LLAs comprises a set of LLAs individual ones of which are mapped to a media access control (MAC) address of individual ones of the MNNs, **,(Kato discloses having a mobile communication system, see title. Kato et al. further discloses packets are delivered to the end terminal interpreted as " network nodes" on a link layer address such as a MAC address interpreted as a" hardwired address", see col. 4 lines 52-59).**

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to incorporate a corresponding MAC address to a link layer address as taught by Kato into Yegin communication system efficiently routing data within the network whereby increasing the reliability and accessibility.

8. Claims 36-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yegin (US Patent 7,376,097) and Warrier et al. (US Patent 6,684,256) as applied to claim 31 above, and further in view of Chiou (US Patent 6,473,413).

With regard to claim 36, , in combination Yegin and Warrier et al. teaches the mobile station recited in claim 31. where the request is made to obtain a set of LLAs, where the set of LLAs are associated with a first AP, and where said data processor further operates, in response to changing a connection of the mobile station from the first AP to a second AP, to send a message to reassociate the set of LLAs with the second AP,**(Chiou et al. discloses having a method for inter-IP- domain roaming across wireless networks (title). Chiou et al. further discloses having a MAC address (LLA) associated with an AP (access point). Chiou et al. discloses that a mobile station 19 moves from first access point A 13 to the new access point B 17 (column 3 line 59-67 and column 4 line 1-21) with a reassociation procedure between the AP 17 and mobile station 19).**
Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to implement a mobile station 19 reassociating APs (access point) as taught by Chiou et al. into a Yegin's communication network to providing a mechanism to allow to roam among various access points in different IP subnets.

With regard to claim 37, in combination Yegin ,Warrier et al. and Chiou teaches the mobile station recited in claim 33. where the Group_ID is associated with a first AP, and where said data processor further operates, in response to changing a connection of the mobile station from the first AP to a second AP, to send a message to reassociate the Group_ID with the second AP, **(Chiou et al. discloses that a mobile station 19 moves from first access point A 13 to the new access point B 17 (column 3 line**

59-67 and column 4 line 1-21) with a reassociation procedure between the AP 17 and mobile station 19. It is inferred that the combination of the AP IP address and MAC address forms a Group_ID that is unique among other AP (access points). Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to incorporate reassociating APs (access point) as taught by Chiou et al. into a Yegin's communication network to provide a mechanism to allow to roam among various access points in different IP subnets.

With regard to claim 38, in combination Yegin ,Warrier et al. and Chiou teaches the mobile station recited in claim 33. where the Group_ID is associated with a first AP, and where said data processor further operates, in response to changing a connection of the mobile station from the first AP to a second AP, to send a message to obtain another Group_ID that is associated with the second AP, **(Chiou et al. discloses that a mobile station 19 moves from first access point A 13 to the new access point B 17 (column 3 line 59-67 and column 4 line 1-21) with a reassociation procedure between the AP 17 and mobile station 19. It is inferred that the combination of the AP IP address and MAC address forms a Group_ID that is unique among other AP (access points).**
Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to incorporate reassociating APs (access point) as taught by Chiou et al. into a Yegin's communication network to provide a mechanism to allow to roam among various access points in different IP subnets.

9. Claims 39-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yegin (US Patent 7,376,097) and Warrier et al. (US Patent 6,684,256) as applied to claim 31 above, and further in view of Ernst et al. ("Network Mobility Support Terminology" 2002).

With regard to claim 39, in combination Yegin and Warrier et al. teaches the mobile station recited in claim 31. where a set of LLAs are tracked as a group, (**Ernst et al. discloses having a nodes belonging to the same MONET share the same IPv6" network identifier" interpreted as a set of "LLA" within a single IP subnet interpreted as a "group", See page 7 lines 12-18).**
Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to implement a subnet of the same IPv6 network identifier as taught by Ernst et al. into Yegin communication system whereby efficiently dividing the network into more manageable architecture.

With regard to claim 40, in combination Yegin and Warrier et al. teaches the mobile station recited in claim 31. where said mobile station comprises a wireless device, **Ernst et al. discloses network mobile support terminology, see title. Ernst et al. further discloses having a wireless or mobile devices such as a PDA, mobile**

phone and laptop etc..., see page 2 para [1]).

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to implement a PDA, mobile phone and laptop as taught by Ernst et al. into Yegin's communication network providing mobility support for a mobile network whereby increasing flexibility in the mobile network.

With regard to claim 41, in combination Yegin and Warrier et al. teaches the mobile station recited in claim 31. where said mobile station comprises a cellular telephone, **(Ernst et al. discloses having a mobile phone interpreted as a "cellular phone", see page 2 para[1]).**

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to implement mobile phone as taught by Ernst et al. into Yegin's communication network providing mobility support for a mobile network whereby increasing flexibility in the mobile network.

With regard to claim 42, in combination Yegin and Warrier et al. teaches the mobile station recited in claim 31. where said mobile station comprises a mobile router (MR)**, (Ernst et al. discloses network mobile support terminology, see title. Ernst et al. further discloses having a mobile router, see page 4 lines 15).**

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to implement mobile router as taught by Ernst et al. into Yegin's communication network providing mobility support for a mobile network

whereby increasing flexibility in the mobile network.

Allowable Subject Matter

10. Claim 1-16 a 43-59 are allowed over prior art.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DEWANDA SAMUEL whose telephone number is (571)270-1213. The examiner can normally be reached on Monday- Thursday 8:30-5:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Q. Ngo can be reached on (571) 272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ricky Ngo/
Supervisory Patent Examiner, Art Unit 2416

/DeWanda Samuel/
Examiner, Art Unit 2416
6/24/2009